

### **REMARKS**

The above amendments are made in response to the Office action of October 4, 2006. The Examiner's reconsideration is respectfully requested in view of the above amendment and the following remarks. No new matter has been added, amendments have been made for purposes of clarifying the claimed invention.

The Applicants thank the Examiner for the indication that claims 17 and 21-24 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Claim 15 has been amended. Support for the amendments to claim 15 can be found at least in FIGS. 2-6. Claims 1-28 are pending in the present application, claims 1-14 have been withdrawn, leaving claims 15-28 for further consideration.

### **Rejections Under 35 U.S.C. § 103**

In order for an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all of the elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996). See MPEP 2143. Claims 3, 4, 8 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuki in view of Applicants' prior art (Fig. 3).

### ***Claims 15, 16 and 18-20***

Claims 15, 16, and 18-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Terasaki (U.S. Patent No. 5,844,540, hereinafter "Terasaki") in view of Takemoto (U.S. Patent No. 6,417,833, hereinafter "Takemoto"). The Examiner has

stated that Terasaki in view of Takemoto discloses all of the limitations of the abovementioned claims.

Terasaki is directed towards a liquid crystal display with a backlight control function. (See Abstract). Terasaki discloses: a liquid crystal module 1 including a liquid crystal panel 1a, a liquid crystal driver 1b, and a liquid crystal panel control section 1c; an image processing/system control section 2, including an image processing circuit 2a and a system control circuit 2b; a display panel illuminator 3 including a fluorescent tube 4, an inverter 5, and a back-light power source supply section 6. (See FIG. 1).

Terasaki does not disclose **a plurality of lamp units including a plurality of lamps illuminating the panel assembly; ... a plurality of inverter boards, including at least a first and a second inverter board, connected in series for generating driving signals for driving the lamps based on the third control signal from the control board and the voltage signal from the system board, wherein the first inverter board receives the third control signal from the control board before the second inverter board receives the third control signal and the second inverter board receives the voltage signal from the system board before the first inverter board receives the voltage signal** as claimed in amended independent claim 15 of the present invention.

Takemoto discloses a liquid crystal display apparatus and method for lighting backlight thereof. (See Abstract). Takemoto discloses a plurality of lamp units including a plurality of lamps; a first lamp unit comprising lamps 5 and 6, a second lamp unit comprising lamps 7 and 8, a third lamp unit comprising lamps 9 and 10, and a fourth lamp unit comprising lamps 11 and 12. (See FIGS. 4-6). Takemoto also discloses a plurality of driver circuits 21-24, each driver circuit connected to an individual lamp unit, wherein the driver circuits are connected in series.

Takemoto , however, fails to teach or suggest **a plurality of inverter boards, including at least a first and a second inverter board, connected in series for generating driving signals for driving the lamps based on the third control signal from the control board and the voltage signal from the system board, wherein the first inverter board receives the third control signal from the control board before the second inverter board receives the third control signal and the second inverter**

**board receives the voltage signal from the system board before the first inverter board receives the voltage signal**, as claimed in amended independent claim 15 of the present invention.

Thus, Applicants submit that neither Terasaki nor Takemoto, alone or in combination, render obvious the subject matter of claim 15. Claims 16 and 18-20 depend from claim 15, and thus include the allowable elements of claim 15. It is thus believed that the dependent claims are patentable over the cited references for at least the reasons given above for amended independent claim 15.

Claim 20, in addition to being patentably distinct for the reasons stated above as being dependent from claim 15, is also believed to be patentable and not obvious over Terasaki and Takemoto for the following reasons. Neither Terasaki nor Takemoto disclose, teach or suggest **each of the plurality of inverter boards comprises two connectors for signal transmission of the third control signal and the voltage signal**. Terasaki does not disclose a plurality of inverter boards as discussed above, and Takemoto does not disclose connectors for either a control signal or a voltage signal on the plurality of driver circuits 21-24, let alone two connectors as claimed. (See FIG. 4-6).

Accordingly, it is respectfully submitted that the claimed invention is allowable over the cited references. The Examiner's reconsideration and withdrawal of the rejection of claims 15, 16 and 18-20 and the subsequent allowance of those claims is respectfully requested.

#### ***Claims 25 and 26***

Claims 25 and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Terasaki in view of Takemoto and further in view of Miyachi (U.S. Patent No. 6,982,686, hereinafter "Miyachi"). The Examiner has stated that Terasaki in view of Takemoto and further in view of Miyachi teaches all the limitations of claims 25 and 26.

As mentioned above for amended independent claim 15, Terasaki in view of Takemoto neither teaches nor suggests **a plurality of inverter boards, including at least a first and a second inverter board, connected in series for generating driving signals for driving the lamps based on the third control signal from the control board and the voltage signal from the system board, wherein the first inverter board**

**receives the third control signal from the control board before the second inverter board receives the third control signal and the second inverter board receives the voltage signal from the system board before the first inverter board receives the voltage signal**, as claimed in amended independent claim 15.

Miyachi is directed to a liquid crystal display device and a driving method thereof. (See Abstract). Miyachi discloses a cold cathode tube for illuminating pixels with light which increases in luminance with an output signal which rises and falls in each frame. (See Abstract).

Miyachi, however, fails to teach or suggest **a plurality of inverter boards, including at least a first and a second inverter board, connected in series for generating driving signals for driving the lamps based on the third control signal from the control board and the voltage signal from the system board, wherein the first inverter board receives the third control signal from the control board before the second inverter board receives the third control signal and the second inverter board receives the voltage signal from the system board before the first inverter board receives the voltage signal**, as claimed in amended independent claim 15.

Thus, Applicants submit that neither Terasaki, Takemoto, nor Miyachi, alone or in combination, render obvious the subject matter of claim 15. Claims 25 and 26 depend from claim 15, and thus include the allowable elements of claim 15. It is thus believed that the dependent claims are patentable over the cited references for at least the reasons given above for independent claim 15.

Accordingly, it is respectfully submitted that the claimed invention is allowable over the cited references. The Examiner's reconsideration and withdrawal of the rejection of claims 25 and 26, and the subsequent allowance of those claims is respectfully requested.

### ***Claims 27 and 28***

Claims 27 and 28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Terasaki in view of Takemoto and further in view of Fujishiro (U.S. Patent No. 6,917,354, hereinafter "Fujishiro"). The Examiner has stated that Terasaki in view of Takemoto and further in view of Fujishiro teaches all the limitations of claims 27 and 28.

As mentioned above for amended independent claim 15, Terasaki in view of Takemoto neither teaches nor suggests **a plurality of inverter boards, including at least a first and a second inverter board, connected in series for generating driving signals for driving the lamps based on the third control signal from the control board and the voltage signal from the system board, wherein the first inverter board receives the third control signal from the control board before the second inverter board receives the third control signal and the second inverter board receives the voltage signal from the system board before the first inverter board receives the voltage signal**, as claimed in amended independent claim 15.

Fujishiro is directed to a fluorescent lamp, fluorescent lamp unit, liquid crystal display device, and method of emitting light. (See Abstract). Fujishiro discloses applying a voltage having a negative polarity to the first discharge electrodes and a voltage having a positive polarity to the second discharge electrodes (See Abstract, column 1, lines 42-59).

Fujishiro, however, fails to teach or suggest **a plurality of inverter boards, including at least a first and a second inverter board, connected in series for generating driving signals for driving the lamps based on the third control signal from the control board and the voltage signal from the system board, wherein the first inverter board receives the third control signal from the control board before the second inverter board receives the third control signal and the second inverter board receives the voltage signal from the system board before the first inverter board receives the voltage signal**, as claimed in amended independent claim 15.

Thus, Applicants submit that neither Terasaki, Takemoto, nor Fujishiro, alone or in combination, render obvious the subject matter of claim 15. Claims 27 and 28 depend from claim 15, and thus include the allowable elements of claim 15. It is thus believed that the dependent claims are patentable over the cited references for at least the reasons given above for independent claim 15.

Accordingly, it is respectfully submitted that the claimed invention is allowable over the cited references. The Examiner's reconsideration and withdrawal of the rejection of claims 27 and 28, and the subsequent allowance of those claims is respectfully requested.

**Conclusion**

In light of the above remarks, the present application including claims 15-28 are believed to be in condition for allowance.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the outstanding rejections. If there are any charges due with respect to this response, please charge them to Deposit Account No. 06-1130 maintained by Applicants' Attorneys.

Respectfully submitted,

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